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(54) Title: ERROR DIFFUSION FOR DISPLAY FRAME BUFFER POWER SAVING

Perform an error diffusion operation on the pixels to reduce a color depth of the pixels during a low power state
602

Store at least a portion of the pixels with reduced color depth in the first segment of the frame buffer during the low power state without accessing the second segment of the frame buffer
604

(57) Abstract: Methods and apparatuses for error diffusion for display frame buffer power saving are described herein. According to one embodiment, pixels of a color plane of image data are stored in a first segment and a second segment of a frame buffer during a normal power state. During a low power state, an error diffusion operation is performed on the pixels to reduce a color depth of the pixels. Thereafter, at least a portion of the pixels with reduced color depth is stored in the first segment of the frame buffer during the low power state without accessing the second segment of the frame buffer. Other methods and apparatuses are also described.